## WHAT IS CLAIMED IS:

A method for preparing a pyrimidin-4-one com pound having the formula (5):

$$\begin{array}{c|c}
O \\
R^a
\end{array}$$
(5)

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in which Ar represents an aromatic hydrocarbyl or heterocyclic ring optionally having a substituent, R<sup>a</sup> represents hydrogen or a hydrocarbyl group, and R<sup>b</sup> represents an atom or a group which does not participate in the below-mentioned reaction, provided that R<sup>b</sup> is other than hydrogen where R<sup>a</sup> is hydrogen;

which comprises reacting an aminoarylcarboxylic acid compound having the formula (1):

$$\begin{array}{c}
CO_2R^1 \\
NH_2
\end{array}$$

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in which Ar has the above-mentioned meaning, and R<sup>1</sup> represents hydrogen or a hydrocarbyl group; with an organic acid compound having the formula (4):

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$$(R^3O)_3CR^b$$
 (4)

in which  $R^3$  represents a hydrocarbyl group, and  $R^b$  has the above-mentioned meaning;

in the presence of a nitrogen atom-containing compound having the formula (2) or (3):

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 $R^{e}NH_{2}$  (2)

 $R^2CO_2NH_3R^a$  (3)

in which  $R^2$  represents hydrogen or a hydrocarbyl group, and  $R^a$  has the above-mentioned meaning.

- 2. The method of claim 1, in which the reaction is performed in an organic solvent.
- 3. The method of claim 2, in which the organic solvent is a polar solvent.
  - 4. The method of claim 3, in which the polar solvent is a lower alcohol having 1 to 6 carbon atoms.
  - 5. The method of claim 1, in which the nitrogen atom-containing compound is an amine compound or ammonium acetate.
- 20 6. The method of claim 1, in which the reaction is performed at a temperature in the range of 40 to 200°C.
- 7. The method of claim 1, in which Ar is a 5- or 6-membered aromatic hydrocarbyl ring optionally having a substituent.
  - 8. The method of claim 1, in which Ar is a 5- or 6-membered aromatic heterocyclic ring optionally having a substituent.
  - 9. The method of claim 1, in which the pyrimidin-4-one compound has the formula (7):

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$$\begin{array}{c|c}
R^{5} & R^{4} & O \\
R^{5} & R^{4} & O \\
R^{6} & R^{4} & R^{5}
\end{array}$$

$$\begin{array}{c|c}
R^{4} & O \\
R^{5} & R^{4} & O \\
R^{5} & R^{5} & R^{5}
\end{array}$$

$$\begin{array}{c|c}
R^{5} & R^{5}$$

in which each of Ra and Rb has the meaning defined as above, each of R4, R5, R6 and R7 independently represents an atom or a group which does not participate in the reaction, provided that R4, R5, R6 and R7 can form a ring in optional combinations, and each of X1, X2, X3 and X4 independently represents a carbon atom or a nitrogen atom, provided that, where any of X1, X2, X3 and X4 are ni-15 trogen atoms, the nitrogen atoms do not have the atom or group thereon,

and the aminoarylcarboxylic acid compound is an aminocarboxylic acid compound having the formula (6):

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in which each of X1, X2, X3, X4, R4, R5, R6, and R7 has the meaning defined as above, and R8 represents an atom or a group which does not participate in the reaction.

30 The method of claim 1, in which the pyrimidin-4-one compound is a quinazolin-4-one compound having the formula (9):

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in which each of R<sup>a</sup> and R<sup>b</sup> has the meaning defined as above, each of R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup> and R<sup>7</sup> independently represents an atom or a group which does not participate in the reaction, provided that R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup> and R<sup>7</sup> can form a ring in optional combinations,

and the aminoarylcarboxylic acid compound is an anthranilic acid having the formula (8):

$$R^{5}$$
 COOR<sup>8</sup> (8)

in which each of R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, and R<sup>7</sup> has the meaning defined as above, and R<sup>8</sup> represents an atom or a group which does not participate in the reaction.

11. The method of claim 1, in which the pyrimidin-4-one compound is a pyrazolopyrimidin-7-one compound hav-30 ing the formula (11):

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in which each of Ra and Rb has the meaning defined as above, each of R9 and R10 independently represents an atom or a group which does not participate in the reaction, provided that R9 and R10 can form a ring in combination,

and the aminoarylcarboxylic acid compound is an aminopyrazolcarboxylic acid having the formula (10):

$$\begin{array}{c|c}
R^9 & N & COOR^8 \\
N & NH_2
\end{array}$$

in which each of R9 and R10 has the meaning defined as 15 above, and Re represents an atom or a group which does not participate in the reaction.

The method of claim 1, in which the pyrimidin-4-one compound is a thienopyrimidine compound having the formula (13):

$$\begin{array}{c|c}
R^4 & O \\
X^5 & X^6 & N \\
R^5 & X^7 & N \\
R^6 & R^6
\end{array}$$
(13)

in which each of Ra and Rb has the meaning defined as above, each of R4, R5, and R6 independently represents an atom or a group which does not participate in the reac-30 tion, provided that R4, R5, and R6 can form a ring in optional combinations, and at least one of X5, X6 and X7 represents a sulfur atom, and other is carbon atom, provided that, where any of X5, X6 and X7 are sulfur atoms, 35 the sulfur atoms do not have the atom or group thereon, and the aminoarylcarboxylic acid compound is an

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aminothicphenecarboxylic acid compound having the formula (12):

$$\begin{array}{c|c}
R^4 & \text{COOR}^8 \\
\hline
R^5 - X^5 & \text{NH}_2 \\
R^6 & & \\
\end{array}$$

in which each of X<sup>4</sup>, X<sup>5</sup>, X<sup>6</sup>, R<sup>4</sup>, R<sup>5</sup>, and R<sup>6</sup> has the meaning defined as above, and R<sup>8</sup> represents an atom or a group which does not participate in the reaction.